

POLAND/Electronics - Semiconductors.

H-

Abs Jour : Ref Zhur Fizika, No 3, 1960, 6422

cannot be explained with the aid of the Lashkarev-Romanov theory (Referat Zhur Fizika 1957, No 3, 7045) or the Tautz theory (Referat Zhur Fizika 1955, No 11, 24903). Investigations have been made, indicating the appearance of injection of minority carriers from one portion of the inhomogeneous specimen of germanium to another. An hypothesis is advanced that this is the essential reason for the occurrence of anomalous values of resistance. The application of measurements of the photo-emg for simple identification of the sections of anomalous resistance is proposed.

Card 2/2

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POLAND/Electronics - Semiconductors.

H-

Abs Jour : Ref Zhur Fizika, No 3, 1960, 6422

Author : Majewski, Z., Sikorski, S., Swiderski, J.
Inst : -

Title : On the Relation Between Anomalous Resistivity and Concentration Gradient of Carriers in Germanium

Orig Pub : Bull. Acad. polon. sci. Ser. sci. techn., 1959, 7, No 6, 401-406

Abstract : In the measurements of the specific electric resistivity of Ge by the two-probe method, the results are considerably higher than the specific resistivity of pure Ge. These anomalous values of the resistance depend on the voltage and on the direction of the current used in the measurements. It has been noted that this phenomenon is accompanied by the appearance of a volume photo-emf the behavior of which is connected with a character of the nonlinearity of the specific electric resistivity, and it

Card 1/2

Sovetskoye po poluprovodnikovym materialam. Moscow, 1957

Voprosy metallurgii i fiziki poluprovodnikov: tudy 3-ego serebrennogo. (Problems in the Metallurgy and Physics of Semiconductors: Transactions of the Third Conference) Moscow, Izdat. AN SSSR, 1959. 129 p. Zhurnal 519 inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii i fiziki poluprovodnikov. Reap. Ed.: N. Kh. Abrikosov, Doctor of Chemical Sciences; M. P. Zolotarev.

PURPOSE: This collection is intended for technical and scientific personnel concerned with the investigation and production of semiconductor materials. It may also be used by students in schools of metallurgy.

COVERAGE: The collection contains reports submitted at the Third Conference on Semiconductor Materials held at the Institute of Metallurgy, Lenin State University, Moscow, in May 1957. The reports deal with problems of obtaining and investigating germanium, silicon, and semiconductor compounds. The collection was first edited by D. A. Pecher, Doctor of Technical Sciences. References accompany most of the reports.

Goldstein, V. V. On the Problem of the Role of Some Factors in the Growth Process of Single Crystals from a Melt. 23

Tolpygo, E. B. Investigation of Role Zones of Diamond-Type Crystals on the Basis of the Hall Effect. (Institute of Physics, Hungarian People's Republic). 29

Sil'pelt, Andriyevskiy (Institute of Physics, Hungarian People's Republic). Concerning the Problem of Semiconductor Point-Contacts 40

Masalski, Z. (Institute of Basic Technical Problems, Polish Academy of Sciences). Properties of P-N Junctions in Germanium Single Crystals Withdrawn from the Melt by Pulling 43

Gorodetskiy, L. (Institute of Physics, Polish Academy of Sciences). Effect of the Introduction of Minority Current Carriers on Light Reflection from Germanium 49

Bugay, A. A., V. Ya. Kozlov, and Ya. G. Masalskiy. Diffusion and Solubility of Iron and Silver in Germanium 52

Vasilenko, A. P., and V. A. Pecher. Investigation of Melting of Semiconductors with Seals 57

Vasil'yevskiy, V. N., and Ya. G. Masalskiy. Investigation of Segregation and Solubility of Some Impurities in Germanium During Crystallization from the Melt 62

Tremblay (Institute of Technical Physics, Czechoslovak Academy of Sciences). Problem of Obtaining Pure Silicon 68

Reimer, D. A., Yu. M. Shalov, V. V. Zolotarevskiy, and V. D. Zolotarev. Sticking of Silicon Single Crystals 69

Halting Technology (Institute of Applied Physics, Chinese People's Republic). Impurities in Silicon Pure Water for Washing Materials Used in Semiconductor Engineering 78

Abrikosov, N. B., M. I. Aliev, A. A. Gashimov, and G. M. Aliev. Effect of Halide Impurities on the Physical Properties of Germanium 80

Abrikosov, N. B., G. A. Aliev, A. A. Kolyer, and Z. A. Alievskiy. On the Diffusion of Certain Metals in Polycrystalline Germanium 89

Dudkin, L. D., and N. Kh. Abrikosov. Problems of Alloying Semiconductor Alloys 94

Masalskiy, Z. B., M. I. Vasil'yevskiy, and V. D. Pecher. Effect of Growth Conditions of Single Crystals of GeS and GeSe on Their Physical Properties 107

Trofimov, A. P., and G. A. Pecher. Effect of Temperature and Certain Impurities on the Dark Resistance and Photoconductivity of GeS Single Crystals 112

Kuznetsov, L. (Institute of Technical Physics, Czechoslovak Academy of Sciences). Semiconductor Compounds with an Excess of One of the Components 117

Sponer, V. V. Effect of Surface Condition on the Electrical Properties of Type IIIB Compounds 120

Pecher, V. A., M. A. Kozlov, E. B. Vasil'yevskiy, A. G. Gashimov, and V. V. Masalskiy. Production and Investigation of New Semiconductor Materials 127

AVAILABLE: Library of Congress

Card 5/5

77/42/08
1/20/64

MASEWSKI, Z.

POLAND/Electronics - Photocells and Semiconductor Device.

H

Abs Jour : Ref Zhur Fizika, No 11, 1959, 25561

Author : Majewski, Zdzislaw

Inst : ~~Warsaw University of Technology~~

Title : Development of Semiconductor Electronics. Part I.

Orig Pub : Elektronika, 1958, 4, No 6, 202-221

Abstract : Popular survey of the accomplishments in the fields of physics and semiconductor technology since 1946.

Card 1/1

Introduction to (Cont.)

POL/2741

Electric Conductivity of Metals and Semiconductors

86

Minority Carriers

118

Barrier phenomena

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Bibliography

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AVAILABLE: Library of Congress (TK7872.S4M25)

Card 3/3

JP/jb
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Introduction to (Cont.)

POL/2741

theory of p-n junction, electron emission, luminescence, the defects of crystal lattice (in particular the dislocations), optical and photoelectric phenomena in semiconductors and surface effects. He thanks Professor Doctor Janusz Groszkowski, Docent, Bohdan Paszkowski and Stanislaw Sikorski, Master in Engineering for their suggestions. He also thanks Professor Włodziniez Scisłowski and Mikosz Chmielewski, Master in Engineering for reviewing the manuscript. There are 32 references: 4 Polish, (8 of which are translations) 14 English and 6 German.

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PHASE I BOOK EXPLOITATION POL/2741

Majewski, Zdzisław

Wstęp do elektroniki półprzewodników (Introduction to Semiconductor Electronics)
Warsaw, PWN, 1958. 158 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Polska akademia nauk. Instytut podstawowych problemów
techniki.

General and Tech. Ed.: Kazimiera Calńska.

PURPOSE: The book is intended for students of Polytechnical Institutes and for
specialists in electronics.

COVERAGE: This book is an attempt at a systematic presentation of the funda-
mentals of semiconductor theory. He cites the book of R.D. Middlebrook, "An
Introduction to Junction Transistor Theory" and the book of W.C. Dunlap, "An
Introduction to Semiconductors", as the best examples of a systematic presenta-
tion of the subject in non-Polish literature. The author intends to treat the
following problems, which are omitted in this book, in a future edition: the

Card 1/3

MAJEMSKI, Z.

Materials for electronics; a report of the 8th Section of the Polish Academy of Sciences at the Conference on Raw and Processed Materials in the Field of Electrotechnics, Breslaw, December 13-15, 1955.

P. 433 (Przegląd Elektrotechniczny, Vol. 32, no. 10. Oct. 1956, Warszawa, Poland)

Monthly Index of East European Accessions (EPAI) LC. Vol. 7, no. 2,
February 1958

POLAND / Chemical Technology, Chemical Products and Their
Application. Elements. Oxides. Mineral Acids.
Bases. Salts.

H-8

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 15982

Author : Majewski, Z.

Inst : Not given

Title : Vacuum Techniques Applied to Germanium

Orig Pub : Arch. elektrotechniki, 1956, 5, No 4, 769-779

Abstract : A description of process techniques in the obtaining of
metallic Ge of semi-conducting properties from the native
(PDR) germanium oxide under laboratory conditions is given.
The germanium oxide is reduced in the H₂ stream at 5400
with a 95% yield. The powdery Ge thus obtained is fused at
1050°. Impurities present (in wt%) are: 0.3 - S, 0.42 - P,
2.3 - SiO₂, 0.1-0.01 - Ca and Al. The resistance of Ge
after the single remelting and etching with the HF-HNO₃

Card 1/2



MAJEMSKI, Z.

"Germanium Diodes", p. 2, (PRZEGLAD TELEKOMUNIKACYJNY, Vol. 28, No. 1, Jan. 1955, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May 1955, Uncl.

MAJEWSKI, Z; BROCHOCKI, A.; KLAMKA, J.

Influence of the zone melting of germanium upon the inverse voltage of the germanium-tungsten contact system. p. 394. ARCHIWUM ELEKTROTECHNIKI. Vol. 4, no. 2, 1955 Warszawa.

Source: East European Accessions List, (EEAL), Lc, Vol. 5, No. 3, March, 1956

MAJENSKI, Z; KLAMKA, J.

Electrolytic spot etching of germanium. p. 379. ARCHIWUM ELEKTROTECHNIKI.
Waszawa. Vol. 4, no. 2, 1955

Source: East European Accessions List, (EEAL), Lc, Vol. 5, No. 3, March, 1956

MAJEWSKI, Z.

POL.

021.34.035 : 021.315-00

3357

Majewski Z. Non-Linear Semi-Conductors.

"Półprzewodnikowe elementy nieliniowe". (Prace Przem. Inst. Telek. No. 11), Warszawa, 1951, PWT, 10 pp., 27 figs.

The paper outlines the present state of crystal-diode technique. It comprises, in particular, the theoretical principles of operation, electrical features and design topics of crystal diodes. The paper also gives consideration to certain problems pertaining to the technology of silicon and germanium.

BB

201

5

MAJEWSKI, Z.

"The influence of the ambient temperature and current load on the reverse characteristics of the silicon-tungsten contact point arrangement." p. 328.
(ARCHIWUM ELEKTROTECHNIKI Vol. 2, No. 3/4, 1953. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4.
April 1955. Uncl.

MAJEWSKI, Z., BROCHOCKI, A.

"The influence of contact pressure on the characteristics of the silicon-tungsten contact point arrangement." p. 325. (ARCHIWUM ELEKTROTECHNIKI Vol. 2, No. 3/4. 1953. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4. No. 4. April 1955. Uncl.

MAJEWSKI, Zbigniew

POLAND/Theoretical Physics - General problems

5-1

Ac's Jour : R. Z. Fizika, No 5, 1959, No 9793

Author : Augustyniak Zdzislaw, Majewski Zbigniew

Inst : -

Title : Problem of Objectivity of Time and Space in Little
Relativity Theory

Orig Pa : Studia Filoz., 1958, No 3, 103-120

Abstract : No abstract

Card : 1/1

MAJEWSKI, Z., mgr inz.; MICHALOWSKI, M., dr inz.; MIKULSKI, J.,
dr inz.

Individual index of heat consumption of open-hearth furnaces.
Hutnik P 30 no. 5: 143-147 My '63.

POLAND/General and Specialized Zoology - Insects. Harmful
Insects and Acarids. Forest Pests.

P

Abs Jour : Ref Zhur Biol., No 6, 1959, 25498

of the neighboring trees. The species composition of P changes, BB playing the dominant role. The effect of the fire is also expressed by the development of primary P on neighboring trees. The part played by birds, parasites and predators is minimal. -- D.P. Dovnar-Zapol'skiy

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POLAND/General and Specialized Zoology - Insects. Harmful
Insects and Acarids. Forest Pests.

P

Abs Jour : Ref Zhur Biol., No 6, 1959, 25498

to settle rapidly on the trees perished by the fire. The metallic wood-borer (*Melanophila acuminata*) and the pine beetle (*Pissodes piniphilus*) developed on masses on fallen branches and tops of the trees. The numbers of the bark beetles (BB) of the large forest gardener, of the striped ambrosia (*Trypodendron (Xyloterus) lineatum*), of the spruce beetle (*Crypturgus pusillus*), of *Orthotomicus suturalis*, of *Ips sexdentatus* and others grew rapidly by next spring. The composition of secondary pests (P) changed slightly in the following year. The conducted investigations permit to make the following deduction: A complex of P, in which one or more species predominate, develop in forests that suffered from fire. The propagation outbreaks of secondary P result from a sudden infestation with subsequent growth and its abatement, the degree of infestation depending upon the state of health

Card 2/3

POLAND/General and Specialized Zoology - Insects. Harmful
Insects and Acarids. Forest Pests.

P

Abs Jour : Ref Zhur Biol., No 6, 1959, 25498

Author : Majewski, Z.

Inst :

Title : The Developmental Process of Secondary Pests in the
Growing Stock of Trees after a Fire.

Orig Pub : Las polski, 1958, 32, No 2, 1-11

Abstract : In 1954, observations were conducted on sections of a
pine forest (about 100 hectares). The grey long-antenna
long-horned beetle (*Acanthocinus aedilis*) was the first
to appear on the singed young trees (without infesting the
middle-aged and older groups). The large forest gardener
(*Blastophagus piniperda*) began to settle on the damaged
trees of the middle group, but its passages were clogged
with sap. The weevil (*Strophosonius obesus*) and the spon-
dyle long-horned beetle (*Spondylis buprestoides*) began

Card 1/3

MAJEWSKI, Wojciech, mgr inz.; KARATNICKA, Elzbieta, mgr inz.

Velocity distribution in open channels and determination of the α and β coefficients. Gosp wodna 25 no.2:79-82 F '65.

1. Institute of Hydraulic Engineering, Gdansk, of the Polish Academy of Sciences (for Majewski) 2. Institute of Soil Improvement and Grasslands, Warsaw (for Karatnicka).

MAJEWSKI, Wojciech, mgr inz.; MANTHEY, Tadeusz, dr inz.

Tenth Congress of the International Hydraulic Research Association,
London, September 1-5, 1963. Gosp wodna 24 no. 5:182-183 My '64.

1. Institute of Hydraulic Engineering, Polish Academy of Sciences,
Gdansk.

MAJEWSKI, Wojciech, mgr inż.

Phenomena of density differences with particular consideration of the stabilized cnoek. Gosp wodna 24 no.10: Suppl: Biul inst bud wodn 5 no.5:391-392 0 '64.

1. Department of Inland Hydraulic Engineering, Institute of Hydraulic Engineering, Polish Academy of Sciences, Gdansk.

MAJEWSKI, Wojciech, mgr inz.

The hydraulic laboratory in Wallingford. Gosp wodna 23 no.11:
439-440 N°63.

JASIEWICZ, Romuald, dr inż.; RADZIKOWSKI, Adam, doc. dr inż.; MANTHEY, Tadeusz, dr inż.; PIETKA, Zenon, dr inż.; KAJETANOWICZ, Zbigniew, prof. dr inż.; MAJEWSKI, Wojciech, mgr inż.; KORDAS, Bolesław, mgr inż.; JACENKOW, Bolesław, mgr inż.; ZMIGRODZKI, Zbigniew, prof. dr inż.; MIKUCKI, Zygmunt, doc. dr inż.; SOBIERAJ, Jerzy, mgr inż.

Discussions on papers and communications. Rozpr hydrotechn no.12: 49-64 '62.

1. Technical University, Warsaw (for Jasiewicz, Zmigrodzki, Mikucki).
2. Technical University, Szczecin (for Radzikowski).
2. Research Institute of Hydraulic Engineering, Polish Academy of Sciences, Gdansk (for Manthey, Majewski, Jacenkow, Sobieraj).
4. State Hydrological and Meteorological Institute, Warsaw (for Pietka).
5. Technical University, Krakow (for Kajetanowicz, Kordas).

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400023-6

MAJEWSKI, Wojciech

Model studies on discharge coefficients of spillway devices.
Rozpr hydrotechn no.12:21-28 '62.

MAJEWSKI, Wojciech, mgr inz.

Model testing in hydraulic laboratories in Yugoslavia.. Gosp. wodna 22
no.10:473-474 0 '62.

1. Pracownia Hydraulicznych Badan Modelowych, Instytut Budownictwa
Wodnego, Polska Akademia Nauk, Gdansk.

MAJEWSKI, Wojciech, mgr inż.

Research based on models in hydraulic laboratories in Yugoslavia.
Gosp wodna 22 no.9:427-428 S '62.

1. Pracownia Hydraulicznych Badan Modelowych, Instytut
Budownictwa Wodnego, Polska Akademia Nauk, Warszawa.

MAJEWSKI, Wojciech, mgr., inz.

Hydraulic model investigations on the outlet sluice of the cascade near the town of Tresna. Gosp wodna 21 no.12:537-539 D '61.

1. Zaklad Budownictwa Wodnego Srodladowego, Instytut Budownictwa Wodnego, Gdansk.

MAJEWSKI, Wojciech

Hydraulic model research on the cooling water circulation in river system. Rozprawy hidrotechn no.9:13-35 '61.

MAJEWSKI, Włodzimierz, mgr., inż.

Computation of cross-curves for the stability of ships with recessed ramps by electronic calculating machines. Bud okretowe Warszawa 7 no.2:61-62 '62.

1. Centralne Biuro Konstrukcji Okretowych Nr.1, Gdansk

MAJUSZT, WLADYSLAW.

Projektowanie telefonicznych sieci miejscowych i okregowych. (Wyd. 1.)
Warszawa, Wydawn. Komunikacyjne, 1954. 336 s. (Designing local and district
telephone networks. 1st ed. bibl., diagrs., graphs, index)

So. East European Accessions List Vol. 5, No. 1, Jan. 1956

L 51095-55

ACCESSION NR: AT5011789

SUBMITTED: 208ep69

ENCL: 03

SUB CODE: EC

NO REF TOV: 000

OTHER: 000

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L 51095-65

ACCESSION NR: AT5011789

Figure 3 of the Enclosure, has shown that the resistance loading the tube is much higher than the internal tube resistance, this being of advantage in minimizing nonlinear distortion. In this circuit, the anode voltage is much higher than in the parallel circuit. A series-connected circuit without the use of transformers is also discussed. The circuits discussed are compared and some numerical data pertaining to their operation are tabulated. The analysis and the numerical data show that, from the standpoint of performance and economy, the optimal circuit is the parallel-connected circuit using a double-triode without additional loading resistance and employing negative feedback in the cathode circuit. This conclusion is corroborated by a detailed discussion. The series-connected two-way distribution point is impractical because of economic considerations (it requires too many transformers). The parallel-connected circuit is also not recommended for reasons of economy; it requires too many tubes although its performance is superior to that using triodes. Several versions of two-way distribution points were developed in the Katedra Teletransmisji Przewodowej Politechniki Warszawskiej (Department of Guided Teletransmission of Warsaw Polytechnic Institute), and the results obtained corroborated the analytical conclusions reached in the paper. Orig. art. has: 6 figures, 1 table and 31 formulas.

ASSOCIATION: Katedra Teletransmisji Przewodowej Politechniki Warszawskiej (Guided Teletransmission Department, Warsaw Polytechnic Institute)

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Card

L 11095-1-2 INT(2)/BEC-4 Pac-4

ACCESSION NR: AT5011769

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15
14
B+1

AUTHOR: Majewski, W. (Jr.)

TITLE: Two-way distribution points

SOURCE: Warsaw, Politechnika, Zeszyty naukowe, no. 96, Elektryka, no. 37, 1964, 75-86

TOPIC TAGS: teletransmission line, distribution point, conference call circuit

ABSTRACT: The paper discusses the fundamental circuit used in teleconference systems. The theoretical bases of circuits making it possible to transmit messages in both directions in two lines (one line for each direction) are presented together with the principles governing the selection and design of such circuits, i.e., two-way distribution points. The fundamental relations of a parallel-connected two-way distribution point are derived. Two such circuits are discussed, one using triodes, shown in Figure 1 of the Enclosure, and the other using pentodes, shown in Figure 2 of the Enclosure. Analysis of these two circuits has shown that optimal operating conditions can be achieved using pentodes while such conditions cannot be established with triodes. Using pentodes, the gain obtained can be quite high. Transistors can be employed in parallel circuits and, since transistor characteristics resemble those of pentodes, optimal operating conditions can also be established. Analysis of the series-connected two-way distribution point employing triodes, shown in

Card 1/1

MANEWSKI, Witold, prof. dr

Cosmophysics. Problemy 10 [1964.10] no. 3:131-134.

1. Head, Institute of Electronic Physics, Department of
General Physics II, Technical University, Warsaw.

ACCESSION NR: 'AP4016993'

measurements) and temperature curves of ohmic resistance (direct-current measurements) for aromatic compounds. The substances investigated were either nonpolar (anthracene) or polar (aromatic derivatives of hexanitroazobenzene and nitroanthraquinone). On the basis of the results cited in the article, the organic substances currently investigated are: (1) substances whose dielectric loss increases exponentially with the temperature and (2) substances in which no exponential changes in dielectric loss with temperature have been observed. Group 1 includes aromatic crystals, anthracene, and hexanitroazobenzene (classified as organic semiconductors in the literature), and solid solutions of certain macromolecular compounds. Group 2 includes the macromolecular compounds studied, mixtures of polystyrene with resins and mechanical mixtures of resins.

ASSOCIATION: Politechnika Warszawska Katedra Fizyki Elektronowej (Department of Electron Physics, Warsaw Polytechnic School)

SUBMITTED: 00

DATE ACQ: 03Feb64

ENCL: 00

SUB CODE: PH

NO REF SOV: 003

OTHER: 011

Card 2/2

ACCESSION NR: AP4015993

P/0047/83/014/008/0659/0666

AUTHOR: Majewski, Witold

TITLE: On the work of the Electron Physics Department of the Warsaw Polytechnic School

SOURCE: Postepy fizyki, v. 14, no. 6, 1963, 659-665

TOPIC TAGS: organic semiconductor, organic insulator, organic dielectric, dielectric loss, organic thermistor, organic photoresistor, anthracene, hexanitroazobenzene, nitroanthraquinone, polystyrene insulator, resin dielectric, electric conduction mechanism

ABSTRACT: After a brief history of his association since 1921 with the Experimental Physics Laboratory of the University of Warsaw, and an account of the pedagogical and research activities of the director of this laboratory, Prof. Stefan Pienkowski, the author describes the work of the Electron Physics Department, organized in 1946. The research interests of the department are centered on organic aromatic and macromolecular compounds which may find practical applications as insulators, thermistors and photoresistors of high resistivity. The measurements were initially designed to obtain temperature curves of dielectric loss (alternating-current

Card 1/2

84349

Universal Fermi Interaction in Muon Capture .P/045/60/019/004/009/009
B022/B070

result that the effect of vector-current conservation increases the capture rate by 17%; still greater is the influence on the asymmetry parameter, which increases by 33%. It is also found that the vector-current conservation hypothesis increases the singlet (of μ -mesic atoms) capture rate by 11% in comparison with the ordinary V-A theory. Calculations show that neutron asymmetry is largely conserved for muon capture in complex nuclei (67-80% of that in hydrogen); then, experimental observation of this asymmetry may be expected, and the vector-current conservation may also be checked. The three experimental results reported on neutron asymmetry in muon capture (Refs. 11-13) are not sufficiently accurate to give conclusive information on the μ -capture theory adopted in this paper. The author expresses his gratitude to Doctor Chou Huang-chao for assistance and advice during his stay at the J.I.N.R. (Joint Institute of Nuclear Research). There are 1 figure and 13 references: 3 Soviet, 8 US, and 2 Italian.

ASSOCIATION: Institute of Physics, Polish Academy of Sciences, Warsaw

SUBMITTED: January 31, 1960

Card 2/2

81349

P/045/60/019/004/009/009
B022/B070

24.6900

AUTHOR: Majewski, W.TITLE: Universal Fermi Interaction in Muon Capture 19

PERIODICAL: Acta Physica Polonica, 1960, Vol. 19, No. 4, pp. 525 - 530

TEXT: The idea of the universality of weak interactions leading to four-fermion processes expressed ten years ago (Ref.1) has won strong experimental and theoretical support in the last two years. If the idea of universality is correct, then the μ^- capture process (least studied up to now) must be described by the V-A interaction with conservation of vector currents. The effect of the latter, if it exists, must manifest itself more significantly because of the larger momentum transfer. In the present paper, the process of muon capture is considered from the point of view of the examination of V-A coupling and, particularly, of the vector-current conservation hypothesis. The angular asymmetry of neutrons from the capture of polarized μ^- mesons in complex nuclei is estimated by assuming the applicability of the Fermi gas model of the nucleus. A numerical estimate from the formula derived leads to the

Card 1/2

MAJEWSKI, W.

On the polarization of neutrons from muon capture by the nucleus.
Bul Ac Pol mat 8 no.7:467-470 '60.

1. Institute of Physics, Polish Academy of Sciences. Presented by
L. Infeld.

(Neutrons) (Polarization(Electricity))

MAJEWSKI, W.

On the possibility of neutral currents in four-fermion interactions.
Bul Ac Pol mat 8 no.2:95-98 '60. (EEAI 9:12)

1. Institute of Physics, Polish Academy of Sciences. Presented by
L. Infeld.
(Fermions) (Nuclear reactions)

SA

3462. Excitation of Oscillations with a Dynatron in a Circuit with Uniformly Distributed Electrical Constants. W. Majewski. *Acta Physica Polonica*, 7, 4, pp. 340-356, 1939. In French.—A mathematical study is made of the system formed by a dynatron with a circuit having uniformly distributed constants, the author's aim being to take account of the various phenomena which occur and to establish relations as simple and clear as possible between the different parameters which come into play. From the results obtained it appears that such systems can be employed to stabilise the frequency of oscillations with suitable choice of the circuit dimensions and of the operating point of the dynatron. A. W.

NEW S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

17

BC

Technique of the measurement of secondary emission of electrons. W. Markowski (Acta Phys. Polon., 1939, 7, 327-330).—Two types of valve suitable for the study of secondary electron emission are described.

O. D. S.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

MAJEWSKI, Wieslaw

Investigations on the effectiveness of immobilizing dressings
clavicular fractures. Pol. przegl. chir. 37 no. 12:1260-1264
D ' 65.

1. **Z** I Kliniki Chirurgicznej AM w Odamaku (Kierownik: prof.
dr. H. Kania [deceased]).

MAJEWSKI, Wieslaw

Unusual localization of a dermoid cyst. Pol. przegl. chir.
37 no.11:1175-1177 N ' 65

1. Z I Kliniki Chirurgicznej AM w Gdansk (Kierownik: prof.
dr. H. Kania [deceased]).

NAGY, Tibor; MAJEWSKI, Walerian [translator]

Neutrino in the universe. Postepy fizyki 15 no. 2:133-146
'64.

1. Institute of Theoretical Physics, Roland Eötvös University, Budapest (for Nagy).

MAJORS, W.

Concerning JUNE. P. 11.
ENCYCLOPEDIA POLONA, Warszawa, Vol. 11, No. 11, June 1955.

SP: Monthly List of East European Acquisitions, (MMI), II, Vol. 1, No. 1, 1955,
Incl.

MAJEWSKI, Tadeusz, inz.

Tests of the MPA-Jelez coupled autobus. Techn. report 14 no. 7:
Suppl.: Biul inf CBTS 12 no. 4: 1-2 J1 '64.

MAJEWSKI, T., inz.

Testing utilization properties of truck-tractors with
semitrailers for the transportation of loose cement. Techn
motor 13 no. 3: Supplement: Biul inf OBTS 9 no. 2: 1-2
Mr '63.

MAJEWSKI, Tadeusz, inz.

Analysis of certain utilization properties of the Zubr A
80 truck with cooler body. Techn motor 12 no. 9:
Supplement: Biul inf OBTS 8 no. 3: 1-2 S '62.

1. Zaklad Badan Pojazdow, Osrodek Badan Transport
Samochodowego, Warszawa.

Design of wideband waveguide bends ... S/194/62/000/006/203/232
D271/D308

γ coefficient is equal to the maximum possible reflection factor $|\Gamma(x)|_{\text{max.Cheb.}}$. The comparison with binomial bends shows that the maximum reflection factor of a Chebyshev bend is considerably smaller for a given bandwidth and is determined by the ratio

$$\frac{|\Gamma|_{\text{max.Cheb.}}}{|\Gamma|_{\text{max.bin.}}} = \frac{t^n}{T_n(t)} < 1.$$

The author analyzes a three-section bend where the above ratio is 0.32. Whereas the reflection factors in junction points of a binomial bend are in the ratio of 1:3:3:1, in the case of the correspond relation in the Chebyshev bend is 1:3(1 - 1/t²):3(1 - 1/t²):1. In the case of a bend in the H-plane of a rectangular waveguide, the design length of a section must be increased by 10 - 15 %. The author gives a concrete example of designing a 90° H-plane bend of a rectangular waveguide, for the range of 1140 - 1730 Mc/s. Basic properties of Chebyshev polynomials are described. 3 references. [Abstracter's note: Complete translation.]

Card 2/2

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9,1300

AUTHOR: Majewski, T.

TITLE: Design of wideband waveguide bends with Chebyshev characteristics

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-7-164 t (Prace przemysł. inst. telekomun., 1961, v. 11, no. 32-33, 73-80)

TEXT: A method is proposed for the design of wideband waveguide bends consisting of n waveguide sections connected in series at angles θ_i between adjacent sections. The length of each section measured along its axis is the same and the angles θ_i are symmetrical with respect to the bend center. The modulus of the reflection factor at the bend input is a polynomial of n -th order in $x = \cos \theta$, θ being the electrical length of a section. It is made equal to the Chebyshev polynomial of n -th order in tx , multiplied by a proportionality factor γ ; t ($t > 1$) is a scale coefficient determined by the required coverage of frequencies in the operational range. The Card 1/2

EINHORN, Jerzy; MAJEWSKI, Tadeusz

The problem of metabolic (sporadic) hypothyroidism in the
light of an observed case. Endokr. pol. 14 no.3:239-245 '63.

1. Wojewodzka Przychodnia Endokrynologiczna w Zabrze
Kierownik: Dr med. J. Einhorn.
(HYPOTHYROIDISM)

EINHORN, Jerzy: MAJEWSKI, Tadeusz

Menstruation in thyroid disease. Pol. typ. lek. 19 no. 12
989-992 22 Jan 64

1. Z Województwa Przyszłość Endokrynologiczna i Ginekologiczna,
kierownik: dr. med. Jerzy Einhorn).

POLAND

MAJEWSKI, Tadeusz, Chair of Zoohygiene (Katedra Zoohygie-
ny) of the WSR [Wyzsza Szkola Rolnicza, Higher School of
Agriculture] in Lublin (Director: Prof. Dr. Alfred CHOD-
KOWSKI)

"Effect of Milking Vessels on Contamination of the Milk
with Bacteria."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 11, No 4, Apr 63,
pp 211-214.

Abstract: [Author's English summary modified] An investiga-
tion was made to determine to what extent bacteria from
vessels used in milking under normal conditions contribute
to the bacterial flora of the milk. Mothers, milk ves-
sels, colanders, fluid compass, quart, and scoop were
examined and found to be a serious source of milk contamin-
ation already in the first phase of milk production. En-
forcement of sanitary measures is urged for improvement of
this situation. The eight (8) references comprise four
(4) each of Polish and English sources.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400023-6

MAJEWSKI, T.

Organization of insemination. p. 407. (MEDYCINA WETERYNARYJNA. Vol. 9, no. 9, Sept. 1953)

SO: Monthly List of East European Accessions, L.C., Vol. 3, no. 4, April, 1954

MAJANSKI, T.

MAJANSKI, T. The P 10, a new automobile made in the German Democratic Republic. p. 371.
The new Citroen 15 19. p. 372.

Vol. 10, No. 12, Dec. 1955.

WICTORYZACJA

TECHNICZNY

Warszawa, Poland

See: East European Accession, Vol. 5, No. 5, May 1956

MAJEWSKI, Stanislaw, mgr inz.

Diamond-metal dividing tools. Mechanik 36 no.1:52-53 '63.

1. Biuro Projektow Konstrukcji i Technologii Obrabiarek i
Narzedzi Koprotech, Warszawa.

MAJEWSKI, Stanislaw, inz.

New diamond-metal tools for dressing grinding wheels. *Mechanik* 34
no.10:537-538 '61.

1. Centralne Biuro Konstrukcyjne Narzedzi, Warszawa.

MAJEWSKI, S.

MAJEWSKI, S. For further acceleration of the turnover of freight cars. p. 89.
PRZEGLAD KOLEJOWY. Warszawa, Poland, Vol. 8, no. 3, Mar. 1956.

SOURCE: East European Accessions List (FEAL) LC VOL. 5, No. 6 June 1956

PROJECHE, S.

Pledges of factory librarians before the 2nd Party Congress, p. 76. (GIGNEZ, G., Vol. 5, No. 4, Apr. 1954, Warszawa, Poland)

30: Monthly List of East European Accessions, (LHML), 19, Vol. 3, no. 12, Dec. 1954, Uncl.

H AJEWSKI, S.

P.O.L.

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Malowski S. Documentary Evidence of the Development, during the Renaissance Period, of Poland's Mining Industry.

„Zrótlowe dane o rozwoju polskiego górnictwa w epoce odrodzenia”. Przegląd Górniczy, No. 1, 1954, pp. 11-15.

Documents quoted by the author prove that the Polish mining industry, dating back as far as the 10th century, reached in the course of 14th and 15th centuries -- after recovery from the ravages of the 13th century Tartar invasions -- a considerable level of development. The peak of this development was reached in the 16th century and constituted one of the foundations for cultural progress during the Renaissance. Impartiality of German sources of information dating from the period preceding the annexation of Silesia by Prussia, and the biased nature -- inspired by the animosity of German writers towards Poland -- of statements made since 1763.

MAJEWSKI, Romuald

Industry is not fast enough in supplying equipment for combating
vermin and insects in agriculture. Przegl techn no.51:3 21 D
'60.

MAJEWSKI, R.

POLON 18490* Technique of Injection Molding. Technika prasowania wtryskowego. (Polish.) E. Schneider and R. Majewski. *Przemysl Chemiczny*, v. 11, no. 6, June 1966, p. 218-224. Design, operation, and behavior of injection molding machines. Advantages and uses of the method, particularly with the thermoplastics. Photographs, diagrams, tables, graph, 6 ref.

MAJEWSKI, P.

"The repair shop in Nowy Sacz", p. 13, (ZDROWIE, Vol. 5, No. 8, 1953, Warszawa, Poland)

SO: Monthly List of European Accessions, L.C., Vol. 3, No. 4, April, 1954

MAJEWSKI, P.

"With a medical team in the country", p. 10, (ZDROWIE, Vol. 5, No. 6, 1953, Warszawa, Poland)

SO: Monthly List of East European Accessions, L.C., Vol. 3, No. 4, April, 1954

MAJEWSKI, Marian (Warszawa)

Packing meat in portions in the "Sluzewiec" meat plant.
Gosp miesna 14 no.4:22 Ap '62.

MAJEWSKI, M.

Formula for angular distribution in the statistical theory
of multiple particle production. Bul Ac Pol mat 11 no.8:
535-539 '63.

1. Department of Theoretical Physics, University, Lodz.
Presented by L. Infeld.

5015. Apparatus for the determination of the pressure of saturated vapours by a static method. M. Brikale, M. Malinowski and V. Rodionov. *Chem. Abstr.* 1959, 53, 1469. The vapour pressure is measured with the aid of a liquid manometer filled with any suitable liquid substance; it forms a separate unit and is connected by a system of glass tubes and cocks with the evaporation section of the apparatus. Any number of measurements can be carried out at various temperatures with one filling of the substance examined (2 ml). The apparatus can be used for the determination of vapour pressure of up to 1200 mm of mercury. Vapour pressure curves are presented for C_2H_6 and CCl_4 , and the data obtained are collated with those given in the International Critical Tables. At most temperatures the agreement is within 2 to 3 per cent.

H. BURNETT

MAJEWSKI, L.

Contracting tunneling work. p. 212, Vol. 11, no. 6, June 1955, PRZEGLAD GORNICZY

SO:MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EMAL) LC, Vol. 4, No. 9,
Sept. 1955, Uncl.

On some 2-aryl-5,6-dihydro-1,3-oxazine...

S/081/62/000/023/003/120
B162/B180

attributed to the valence vibration of the C=N bond. The electron donor substituents in the aryl radical raise the frequency of this band, but the acceptor substituents lower it. However the linear dependence of this frequency, on the Hammett σ substituent is not explicit. The linearity is especially infringed in case II. In the I-V spectra there are no bands for the valence vibration of group OH. The peculiarities observed in the spectra are attributed to the fact that strong intramolecular hydrogen bonds exist in the ortho-oxyl compounds, and the para-isomers are present in the form of inner ions. [Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/023/003/120
B162/B180

AUTHORS: Eckstein, Zygmunt, Majewski, Krzysztof, Gluziński, Przemysław

TITLE: On some 2-aryl-5,6-dihydro-1,3-oxazine derivatives and their infrared spectra

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 24, abstract 23B151 (Roczn. chem., v. 36, no. 1, 1962, 73-85 [Eng.; summaries in Pol. and Russ.])

TEXT: By interaction of 3-azidopropanol with aromatic aldehydes, 2-aryl-5,6-dihydro-1,3-oxazine are obtained, where aryl = C_6H_5 , 3'- and 4'- $CH_3C_6H_4$, 4'- FC_6H_4 , 2'-, 3'- and 4'- ClC_6H_4 , 4'- BrC_6H_4 , 2'-, 3'- and 4'- $NO_2C_6H_4$, 4'- $(CH_3)_2NC_6H_4$ (I), 4'- HOC_6H_4 (II), 4'- $CH_3OC_6H_4$, 2',3'- $(CH_3O)_2C_6H_3$, α - $C_{10}H_7$, β - $C_{10}H_7$, and their IR-absorption spectra were obtained, as also of salicylidene-aniline (III), bis-salicylidene-ethylene-diimine (IV) and bis-n-oxyphenylene-ethylene-dimine (V). The intensive absorption bands in the $1629-1659\text{ cm}^{-1}$ zone of all the spectra are

Card 1/2

DOMANSKA, Helena; ECKSTFIN, Zygmunt; EJMOCKI, Zdzislaw; MAJEWSKI, Krzysztof;
ZUKOWSKI, Edward

Possibilities of utilizing 2,5-dichlorophenol in the synthesis of
plant protection agents; experiments in applying 2,5-dichlorophenoxyacetic
acid as a herbicide. Postepy nauk roln 9 no.3:59-76 My-Je '62.

1. Katedra Technologii Organicznej II, Politechnika, Warszawa, i
Zaklad Ogolnej Uprawy Roli i Roslin, Szkola Glowna Gospodarstawa
Wiejskiego, Warszawa.

MAJEWSKI, Kazimierz W. (Krakow, ul. Syrokomli 23.)

A case of uncommonly long eyelashes. Klin. oczna 28 no.2:121-124
1958.

1. Z Zakladu Wychowawczo-Leczniczego U.J. dla Dzieci Jagliczych w
Witkowicach.

(EYELASHES,

uncommonly long eyelashes, case report (Pol))

MAJEWSKI, Kazimierz

Influence of mineral fertilizing on the yield and quality of hops.
Rocz nauk roln rosl 80 no.2:367-390 '59. (EEAI 9:11)

1. Zakład Specjalnych Roslin Przemyslowych Instytutu Hodowli i
Aklimatyzacji Roslin, Pulawy. Kierownik Prof. dr Stefan Lewicki.
(Poland---Fertilizers and manures)
(Poland---Hops)

MAJEWSKI, Karol

Theoretical physics during the 20-year period of the Polish
People's Republic. Postępy fizyki 15 no. 3:247-264 '64.

1. Committee of Physics, Polish Academy of Sciences,
Institute for Nuclear Research, Warsaw.

MAJEWSKI, K.

"Methods of installation and purification of filters in boring wells," Gospodarka Wodna, Warszawa, Vol 15, No 1, Jan. 1954, p. 28.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

PAJEWSKI, J.

A new method of irrigation in the Soviet Union in the light of experience. p. 27.
GOSPODARSTWA WODNA (Naczelna Organizacja Techniczna) Warszawa
Vol. 14, no. 11, Nov. 1954

So. East European Accessions List Vol. 1, No. 9 September 1956

MAJEWSKI, K.

Designing and constructing bored wells. p. 396.

GOSPODARKA WODNA. (Naczelna Organizacja Techniczna) Warszawa.
Vol. 14, no. 10, Oct. 1954.

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 5, no. 7, July 1956.

MAJEWski, K.

"Work to be done in the drainage program and the increase of agricultural production."
Gospodarka Wodna, Warsaw, Vol. 14, No. 6, June 1964, p. 219

SO: Eastern European Accessions List, Vol. 2, No. 18, Oct. 1964, Lib. of Congress

MAJENSKI, K.

"For Proper Exploitation and Conservation of Drainage Equipment", p. 30.
(GOSZ PRACOWNIOWO, Vol. 3, No. 5, May 1955, Warszawa, Poland).

SO: Monthly List of East European Accessions, (MEAL), LC, Vol. 4, No. 5,
May 1955, Uncl.

MAJEWSKI, K.

"Role of and Construction of Well Filters." p. 225 (GOSPODARKA WODNA, Vol. 13, No. 6,
June 1953) Warszawa

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No.10,
October 1953. Unclassified.

NIEMYSKI, Tadeusz, doc. dr; MAJCHESKI, Julian, mgr inż.; ZIEBICKI, August,
mgr

Polish-made synthetic diamonds. Przegl techn 36 no.22:11 '65.

1. Institute of Physics of the Polish Academy of Sciences, Warsaw.

MAJEWSKI, Julian, mgr. inz.

Manometric standard of a flowmeter of the ring weight type
for static pressure up to 100 kG/ cm², type PPR-100.
Pomiary 8 no.5:252 My '62.

MAJEWSKI, Jozef; MIKIZWA, Kazimierz

A case of symmetrical necrosis of the renal cortex in a pregnant woman. Polski tygod. lek. 13 no.2:62-65 13 Jan 58.

1. Z Oddziału Urologicznego Szpitala Wojewodzkiego w Kielcach ordynator: dr Jozef Majewski i z Zakładu Anatomii Patologicznej A. M. w Krakowie; kierownik: prof. dr J. Kowalczykowa. Adres: Kielce ul. Zrodlowa, Blik 16 m. 22.

(PREGNANCY, compl.

bilateral symmetrical necrosis of renal cortex, case report (Pol))

(KIDNEY DISEASES, in pregn.

bilateral symmetrical cortical necrosis, case report (Pol))

MAJEWSKI, J.

Phlegmon of the iliac fossa as a complication of diseases of the urinary tract. Polski przegl. chir. 29 no.1:87-90 Jan 57.
Polski przegl. chir. 29 no.1:87-90 Jan 57.

1. Z Oddziału Urologicznego Szpitala Wojewodzkiego w Kielcach
Ordynator: dr. Josef Majewski. Adres autora: Kielce, ul.
Zrodlova bl. 16 m. 22.

(URINARY TRACT, diseases,
causing iliac fossa phlegmon (Pol))
(ILIUM, diseases,
phlegmon of iliac fossa in urinary tract dis. (Pol))
(PHLEGMON, etiology and pathogenesis,
iliac fossa, caused by urinary tract dis. (Pol))

MAJEWSKI, Jozef

MAJEWSKI, Jozef (Kielce, ul. Zrodlowa, blok 16 m. 22.)

Case of hydronephrosis complicated by severe hematuria. Polski tygod. lek. 12 no.38:1466-1467 16 Sept 57.

1. (Z Oddzialu Orologicznego Szpitala Wojewodzkiego w Kielcach; ordynator: dr Jozef Majewski)

(HYDRONEPHROSIS, complications,
hematuria (Pol))

(HEMATURIA, etiology and pathogenesis,
hydronephrosis (Pol))

MAJEWSKI, Jozef.

Case of renal hemangioma Polski tygod. lek. 12 no.28:1087-1088 8
July 57.

1. Z Oddziału Urologicznego w Kielcach; ordynator: dr Jozef Majewski.
Adres: Kielce, ul. Zrodlowa Blok 16 m 22.

(KIDNEYS, neoplasms,
hemangioma (Pol))
(ANGIOMA, case reports,
kidney hemangioma (Pol))

MAJEWSKI, JOZEF
MAJEWSKI, Jozef

Diagnosis of tumors of the right kidney. Urol. polska 10:156-159 1956.

1..Z Oddziału Urologicznego Szpitala Wojewodzkiego w Kielcach.

Ordynator: dr Jozef Majewski.

(KIDNEYS, neoplasms

differentiation from cavernous angioma of liver, x-ray
diag. (Pol))

(LIVER NEOPLASMS, diag.

angioma, cavernous, simulating kidney tumor, x-ray diag.
(Pol))

(ANGIOMA, diag.

cavernous of liver simulating kidney tumor, x-ray diag.
(Pol))

MAJEWSKI, Jozef

Six cases of ureterocele. Urol. polska 8:161-166 1956.

1. Z Oddzialu Urologicznego Szpitala Specjalistycznego w
Stalinogrodzie, Ordynator: dr. A. Szczerbo.

(URETERS, diseases,
ureterocele, case reports. (Pol))

MAJEWSKI, Jerzy, mgr inż.

Designs of electric power transmission lines for voltages of
380-400 kv, and more. Przegl elektrotechn 40 no.9:375-406 S 1964.

1. Energoprojekt, Krakow.

MAJEWSKI, Jerzy, mgr inz.

Analysis of the work of thermistor relays in water velocity
measurements. Gosp wodna 24 no. 7:271-274 J1 '64.

MAJEWSKI, Jerzy, mgr inż.

First Polish 400 kv transmission line. Energetyka Pol 18 no.3:
78-82 Mr 1/4

1. Energoprojekt, Krakow.

MAJEWSKI, Jerzy, mgr inż.; TRACZEWSKI, Adam, mgr inż.

First Polish 400 kv overhead transmission system, Mikulowa-Joachimow. Przegl elektrotechn 39 no.9:325-329, 330 S '63.

1. Energoprojekt, Oddzial Krakow.

MAJEWSKI, Jerzy

Experiment in using a thermistor transducer for measurements
of small velocities of water flow. Rozpr hydrotechn no. 14:
119-132 '63.

MAJEWSKI, Jerzy

Electrorheostatic thermistor gauges applied to velocity and temperature measurements of liquids and gases. *Rozpr hydrotechn* no.12:137-139 '62.

MAJEWSKI, Jerzy

A substitute wavemetric system. Gosp wodna 22 no.7:327-330
J1 '62.

1. Zaklad Badan Specjalistycznych, Pracownia Aparatury
Elektronicznej, Warszawa.